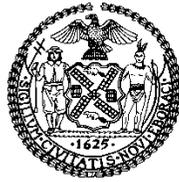


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COMMITTEE ON ENVIRONMENTAL PROTECTION

Hon. Costa Constantinides, Chair

SUBCOMMITTEE ON CAPITAL BUDGET

Hon. Helen Rosenthal, Chair

April 5, 2021

OVERSIGHT – LOCAL LAW 97 IMPLEMENTATION

PRECONSIDERED INT. NO. :

By Council Member Rosenthal

TITLE:

A Local Law to amend the administrative code of the city of New York, in relation the city's reductions in greenhouse gas emissions

ADMINISTRATIVE CODE:

Amends subdivision c of section 24-803

I. INTRODUCTION

On April 5, 2021, the Committee on Environmental Protection, chaired by Council Member Constantinides, and the Subcommittee on Capital Budget, chaired by Council Member

Rosenthal, will hold an oversight hearing on the implementation of Local Law 97 of 2019, and the Committee on Environmental Protection will hear Preconsidered Int. No. in relation to the city's reductions in greenhouse gas emissions. This is the first hearing for this piece of legislation.

The Committee expects to hear testimony from the Mayor's Office of Sustainability (MOS), the Department of Buildings (DOB), the Department of Citywide Administrative Services (DCAS), environmental advocates, real estate industry advocates, and interested members of the public.

II. BACKGROUND

In 2018, the United Nations Intergovernmental Panel on Climate Change (IPCC) identified an increase of 1.5 degrees Celsius above pre-industrial levels as the point over which irreversible environmental changes and potential loss of ecosystems become increasingly likely.¹ According to the United States (U.S.) Global Change Research Program's Fourth National Climate Assessment, failure to significantly mitigate global man made carbon emissions will lead to increasing rates of sea level rise, increased frequency of extreme weather events, and rising temperatures, which are expected to cause ongoing damage to critical infrastructure, property, and economic productivity.²

On May 11, 2019, the Mauna Loa Observatory in Hawaii³ which has compiled atmospheric CO₂ data since the 1950's, recorded 415.26 parts per million (ppm) of CO₂ in the atmosphere, the

¹ International Panel on Climate Change. Special Report on Global Warming of 1.5 C. <https://www.ipcc.ch/2018/10/08/summary-for-policymakers-of-ipcc-special-report-on-global-warming-of-1-5c-approved-by-governments/> (last accessed 3/29/21)

² Reidmiller et al. United States Global Change Research Program, 2018. Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II. <https://nca2018.globalchange.gov/> (last accessed 3/29/21)

³ The Mauna Loa Observatory in Hawaii has compiled daily atmospheric CO₂ data since March, 1958. <https://www.esrl.noaa.gov/gmd/ccgg/trends/> (last accessed 3/29/21)

first time that the observatory measured a daily baseline above 415 ppm.⁴ According to the National Aeronautics and Space Administration (NASA), these are the highest CO₂ levels the planet has seen in the past 800,000 years.⁵ A study published in 2017 in the climate change-focused journal *The Anthropocene Review* estimates that human-linked factors during the past six decades are causing the climate to change 170 times faster than they would without human intervention.⁶

The effects of climate change are often inequitably distributed, with low-income communities, communities of color, children, and senior citizens more likely to experience the deleterious effects.⁷ Low-income communities often lack the financial and community resources to adequately respond to weather-related disasters, while communities of color are disproportionately likely to live in neighborhoods with environmental justice concerns.⁸ Additionally, children and seniors are more vulnerable to the effects of extreme weather than healthy adults.⁹ According to the IPCC, climate modeling pathways featuring little to no overshoot of the 1.5 degree Celsius of warming target generally show global carbon emissions reaching net zero by 2050.¹⁰

⁴ Patrick Galey. 415.26 parts per million: CO₂ levels hit historic high. Phys.Org. <https://phys.org/news/2019-05-million-co2-historic-high.html> (last accessed 3/29/21)

⁵ National Aeronautics and Space Administration. Global Climate Change. Graphic: The Relentless Rise of Carbon Dioxide. https://climate.nasa.gov/climate_resources/24/graphic-the-relentless-rise-of-carbon-dioxide/ (last accessed, 3/29/21)

⁶ Owen Gaffney and Will Steffen. The Anthropocene equation. *The Anthropocene Review*. 2017, volume 4. <https://journals.sagepub.com/doi/pdf/10.1177/2053019616688022> (Last accessed 3/29/21)

⁷ Jay, A., D.R. Reidmiller, et al. 2018: Overview. In *Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume III* U.S. Global Change Research Program, Washington, DC, USA, pp. 33–71

⁸ Id.

⁹ Id.

¹⁰ International Panel on Climate Change. Special Report on Global Warming of 1.5 C. <https://www.ipcc.ch/2018/10/08/summary-for-policymakers-of-ipcc-special-report-on-global-warming-of-1-5c-approved-by-governments/> (last accessed 3/29/21)

In New York City, Local Law 66 of 2014 requires the city to reduce citywide GHG emissions to 80% lower than its 2005 level by 2050 (80x50).¹¹ This requirement to reduce GHG emissions falls largely on New York City's over one million buildings, which is by far the largest source of local GHG emissions.¹² New York City's building stock is responsible for approximately 70% of citywide greenhouse gas emissions.¹³ As it is estimated that more than 90% of New York City's current buildings will still be standing in 2050, increasing energy efficiency of both existing buildings and new constructions is vital to the City's efforts to reduce carbon emissions.¹⁴

Buildings 25,000 square feet or more account for the largest proportion of building emissions in the city, and 35% of citywide emissions overall, across all sectors.¹⁵ In order for the City to reach its 80x50 GHG emissions reduction target, significant emissions reductions in the building sector are required.

III. LOCAL LAW 97 OF 2019

As part of an eight-bill legislative package called the Climate Mobilization Act, in April 2019 the New York City Council passed Local Law 97 of 2019, which sets emission limits for buildings of 25,000 square feet or larger, in order to achieve a 40% carbon equivalent reduction by 2030 and to meet the reduction goal of 80x50.¹⁶ There are approximately 50,000 buildings that fall under the requirements of Local Law 97, comprising nearly 60% of New York City's building

¹¹ Local Law 66 of 2014 calls for a 30% reduction in citywide emissions by 2030, and an 80% reduction in citywide emissions by 2050, relative to such emissions for the base year for citywide emissions.

¹² Urban Green Council. Blueprint for Efficiency: 80x50 Buildings Partnership. August 2018. https://www.urbangreencouncil.org/sites/default/files/blueprint_for_efficiency_80x50_bp.pdf.

¹³ New York City Mayor's Office of Sustainability. Citywide Energy Benchmarking. <https://www1.nyc.gov/site/sustainability/codes/energy-benchmarking.page> (last accessed 3/29/21)

¹⁴ New York City's Roadmap to 80x50. <https://www1.nyc.gov/assets/sustainability/downloads/pdf/publications/New%20York%20City%27s%20Roadmap%20to%2080%20x%2050.pdf> (last accessed 3/29/21)

¹⁵ Urban Green Council. Blueprint for Efficiency: 80x50 Buildings Partnership. August 2018. https://www.urbangreencouncil.org/sites/default/files/blueprint_for_efficiency_80x50_bp.pdf.

¹⁶ Local laws of the city of New York for the year 2019. No. 97. https://www1.nyc.gov/assets/buildings/local_laws/ll97of2019.pdf (last accessed 3/29/21)

area.¹⁷ The law sets emissions intensity limits for 10 categories of buildings, with intensity calculated in metric tons of emissions per square foot.¹⁸ The emissions intensity limit for a specific building is calculated as the emissions intensity limit for the relevant building category multiplied by the gross floor area of the specific building.¹⁹ Rules will be promulgated by the Office of Building Energy and Emissions Performance (OBEEP), which was also established under that local law to be within the Department of Buildings, and are expected to be released in 2023, along with a report outlining metrics and requirements.²⁰ The most carbon intensive 20% of buildings in each category are expected to work towards meeting compliance targets starting in 2024, expanding to cover the most carbon intensive 75% of buildings in each category starting in 2030.²¹ Of the approximately 50,000 buildings covered by Local Law 97, 59% are residential, and 41% are commercial in nature.²²

The definition of “rent regulated accommodation” outlined in Local Laws 97 and 147 of 2019 initially permitted residential buildings containing even a single rent regulated unit to comply through prescriptive measures, in lieu of meeting specific emissions reductions.²³ Local Law 116 of 2020 raised the applicability threshold for a building to opt for prescriptive measures, rather than specific emissions reductions, to buildings containing at least 35% rent regulated units,²⁴

¹⁷ Urban Green Council. NYC Building Emissions Law Summary. Local Law 97. https://www.urbangreencouncil.org/sites/default/files/urban_green_building_emissions_law_summary_2020.02.19.pdf (last accessed 3/29/21)

¹⁸Local laws of the city of New York for the year 2019. No. 97. https://www1.nyc.gov/assets/buildings/local_laws/ll97of2019.pdf (last accessed 3/29/21)

¹⁹ Id.

²⁰ Id.

²¹ Id.

²² Urban Green Council. NYC Building Emissions Law Summary. Local Law 97. https://www.urbangreencouncil.org/sites/default/files/urban_green_building_emissions_law_summary_2020.02.19.pdf (last accessed 3/29/21)

²³ Local Laws of the city of New York for the year 2019. No. 147. https://www1.nyc.gov/assets/buildings/local_laws/ll147of2019.pdf (last accessed 3/29/21)

²⁴ Alexis Saba and Jeffrey B. Gracer. New York City Council considers amendment to Local Law 97 affordable housing provisions. <https://sprlaw.com/new-york-city-council-considers-amendment-to-local-law-97-affordable-housing-provisions/> (last accessed 3/29/21)

greatly expanding the universe of residential buildings that now must comply with specific emissions reductions.²⁵

There are several ways that building owners can reduce their GHG emissions to comply with Local Law 97, including through building retrofits, new operational procedures, purchasing GHG offsets or renewable energy credits, and using clean distributed energy resources.²⁶ The local law also mandates that the city undertake a study examining the feasibility of a carbon trading program for buildings covered by the legislation, including assessments of carbon trading scenarios, methods to ensure that environmental justice communities receive equitable investment, recommendations from stakeholder engagement, and an implementation plan for carbon trading including pricing mechanisms, carbon credit verification, and monitoring and evaluation, that was due January 1st of 2021.²⁷ As of April 1, 2021, this study has not yet been published.²⁸

Local Law 97 also subjects City government operations and the New York City Housing Authority (NYCHA) to emissions reduction mandates, although, in both cases, it's a portfolio standard and not applicable to individual buildings.²⁹ City government operations must reduce emissions by 40% by 2025 and 50% by 2030 relative to calendar year 2006. NYCHA must make efforts to reduce emissions from the building portfolio that it owns or operate by 40% by 2030 and

²⁵ Local laws of the city of New York for the year 2020. No. 116
<https://legistar.council.nyc.gov/View.ashx?M=F&ID=9058978&GUID=BF6F385B-D388-4369-AE20-F4E1E4C63FDF> (last accessed 3/29/21)

²⁶ Local laws of the city of New York for the year 2019. No. 97.
https://www1.nyc.gov/assets/buildings/local_laws/1197of2019.pdf (last accessed 3/29/21)

²⁷ New York City Mayor's Office of Sustainability. Carbon Trading Study.
<https://www1.nyc.gov/site/sustainability/our-programs/carbon-trading-study.page> (last accessed 3/29/21)

²⁸ Id.

²⁹ Local laws of the city of New York for the year 2019. No. 97.
https://www1.nyc.gov/assets/buildings/local_laws/1197of2019.pdf (last accessed 3/29/21)

80% by 2050 relative to calendar year 2005. As of 2019, the most current year for which data is available, New York City has reduced annual GHG emissions by 23% since 2006.³⁰

Concerns have been raised about the speed at which buildings are currently undertaking energy efficiency remediation work.³¹ An NYU study found that the mandatory energy audits mandated by Local Law 87 of 2009 did not result in significant energy use reductions, with multifamily residential building energy use falling by 2.5% between 2011 and 2016, and office buildings reducing usage by 4.9% across the 4,000 buildings included in the study.³² By some estimates, 20% of buildings covered by Local Law 97 may be out of compliance in 2024, with up to 75% out of compliance in 2030 when emissions regulations become more stringent.³³

IV. CAPITAL SPENDING ON ENERGY EFFICIENCY AND SUSTAINABILITY PROJECTS

The Fiscal 2021-2025 Preliminary Capital Commitment Plan includes \$1.37 billion for projects related to energy efficiency and sustainability, while the Ten-Year Capital Strategy includes \$5.4 billion for miscellaneous energy efficiency and sustainability projects. Despite the Administration including a large amount of funding toward energy efficiency and sustainability in both the Preliminary Capital Commitment Plan and Ten-Year Capital Strategy, it is unclear if these projects directly support the City's efforts to comply with Local Law 97 and whether funding is sufficient to meet the aggressive emission reduction targets set forth in the bill.

At a hearing before the Council's Committee on Environmental Protection on April 12, 2018, the Director of the Mayor's Office of Sustainability testified that \$1.2 billion was included

³⁰ New York City Mayor's Office of Sustainability. Inventory of New York City Greenhouse Gas Emissions. <https://nyc-ghg-inventory.cusp.nyu.edu/> (last accessed 3/29/21)

³¹ Justin Gerdes. After Pandemic, New York's Buildings Face Daunting Decarbonization Mandate. Green Tech Media. April, 2020. <https://www.greentechmedia.com/articles/read/new-york-citys-ambitious-building-emissions-law-turns-one> (last accessed 3/30/21)

³² Kontokosta et al. The impact of mandatory energy audits on building energy use. Nature Energy. 2020. <https://www.nature.com/articles/s41560-020-0589-6> (last accessed 3/30/21)

³³ Id at 31

over a ten-year period for energy efficiency and sustainability projects;³⁴ however, upon review of City's the Fiscal 2018 Preliminary Ten-Year Capital Strategy, only \$469 million was identified for miscellaneous energy efficiency and sustainability projects. At the time of the drafting of this report, the reason for the funding variance is unclear, which only supports the growing need for greater transparency surrounding these investments. Of note: since the initial April 12, 2018 hearing before the Council, the City has increased its Ten-Year Capital Strategy allocation for miscellaneous energy efficiency and sustainability projects to the aforementioned \$5.4 billion.

Problems with Transparency & Reporting

The Fiscal 2022 Preliminary Capital Commitment Plan leaves void project details for several energy efficiency and sustainability related projects (see Table 1 below). Unfortunately, this does not allow for ease of tracking, nor an understanding of project end-goals.

Table 1: Select Projects: No Description on Type of Energy Efficiency and Sustainability Investment

Budget Line	Budget Line Title	Project ID	Project Title
PU-0025	ENERGY EFFICIENCY AND SUSTAINABILITY	850 E14-0017	DHS - Bellevue Men's Shelter
PU-0025	ENERGY EFFICIENCY AND SUSTAINABILITY	850 E16-0004	DSNY - Queens 7 District Garage Annex
PU-0025	ENERGY EFFICIENCY AND SUSTAINABILITY	856 EO26-0026	NYPL - The Library for the Performing Arts
PU-0025	ENERGY EFFICIENCY AND SUSTAINABILITY	856 EO26-0037	DOHMH - Fort Greene Health Center
PU-0025	ENERGY EFFICIENCY AND SUSTAINABILITY	856 EO26-0055	DCAS - Midtown Community Court
PU-0025	ENERGY EFFICIENCY AND SUSTAINABILITY	856 EO26-0083	DHS - PARK SLOPE ARMORY SHELTER
PU-0025	ENERGY EFFICIENCY AND SUSTAINABILITY	856 EO26-0088	DPR - McCARREN PARK RECREATION CENTER
PU-0025	ENERGY EFFICIENCY AND SUSTAINABILITY	856 E19-0007	NYPD - 77th Precinct

For clarity and transparency, the Council believes the Administration should remain consistent in its capital reporting, as some project title descriptions provide more detail than others.

For example, see table 2 below:

³⁴ Testimony of Mark Chambers, Director of the Mayor's Office of Sustainability, before the Committee on Environmental Protection, Oversight - The Mission, Work and Accomplishments of The Mayor's Office of Sustainability and The Office of Recovery and Resiliency, April 12, 2018.

Table 2: Select Projects: Detailed Description on Type of Energy Efficiency and Sustainability Investment

Budget Line	Budget Line Title	Project ID	Project Title
PU-0025	ENERGY EFFICIENCY AND SUSTAINABILITY	057 ACEFDN803	FDNY - Solar photo-voltaic system at SOC
PU-0025	ENERGY EFFICIENCY AND SUSTAINABILITY	040 SOLARGR3	DOE- Design of 17 Solar Photovoltaic Systems

Additionally, an initiative as large and impactful as Local Law 97, should be highlighted within the Plan for ease of tracking. See Table 3 below for an example of two projects currently in the Plan whereby local law titles are assigned:

Table 3: Local Law Tag in Preliminary Capital Commitment Plan Title

Budget Line	Budget Line Title	Project ID	Project Title
PW-0293	LOCAL LAW 5 IMPROVEMENTS, CITYWIDE	856 TYP-LL5FA	LL5 - FIRE DETECTION
PW-0317	LOCAL LAW 11 IMPROVEMENTS, CITYWIDE	850 PW317WOR	125 WORTH STREET - FACADE REPAIRS

Capital Spending on NYCHA Local Law 97 Compliance

With over 302 developments across the five boroughs, NYCHA is the largest public housing authority in the nation and will require significant capital funding to ensure compliance with Local Law 97 energy efficiency mandates. To date, NYCHA has engaged in pilot programs whereby it has tested new technology to inform future capital investments toward meeting the City’s goal of reducing GHG emissions by 80% by 2050. Some of these projects include:

- In 2018, NYCHA prepared its participation in RetrofitNY, a deep-energy retrofit competition of the New York State Energy Research and Development Authority (NYSERDA). A NYCHA RetrofitNY RFP was issued in 2019;
- In August 2019, 180 energy efficient air conditioners were installed at Meltzer Tower;
- Through a partnership with the Mayor’s Office of Sustainability and with funding from NYSERDA, NYCHA is designing a test installation of air-source heat pumps to provide both heating and cooling in another; and
- In 2020, NYCHA, in collaboration with NYSERDA, released a Request-for-Proposal (RFP) to select a design team for the retrofitting of a NYCHA building to achieve near net-zero energy performance

As with the capital spending reported for energy efficiency and sustainability related projects in City buildings, the City spending on NYCHA energy efficiency and sustainability projects lacks transparency.

V. ANALYSIS OF PRECONSIDERED INT. NO.

Section 1 of the Preconsidered Int. No. would require that the carbon dioxide equivalent emission annual inventories already required by law additionally include a list of current and future capital projects intended to reduce emissions from city government operations and NYCHA pursuant to the Climate Mobilization Act, and, for each project, an estimate of the associated expected emissions reductions resulting from such project, a project timeline, the total projected budget for the project, and the schedule of planned commitments, and an estimate of the date by which the respective portfolio emissions reduction mandate shall be achieved.

Section 2 of the Preconsidered Int. would define the term “capital commitment plan” and would require that, until the emissions reductions required of city government operations and NYCHA are achieved, each capital project set forth in the capital commitment plan that is intended to reduce emissions in accordance with such mandates shall be so designated therein.

VI. CONCLUSION

If Local Law 97’s emissions goals are met, it will represent a reduction of approximately 17 million metric tons of CO₂ per year from a 2005 baseline, by 2030, equivalent to removing 3.6 million cars from the road per year.³⁵ Analysis suggests that retrofitting all 50,000 buildings covered by the local law by 2030 would generate nearly 25 billion dollars of economic activity,³⁶ and potentially reduce energy consumption costs in retrofitted buildings by up to 30%.³⁷ Proper implementation of the local law will not only put New York City well on track to meet its climate

³⁵ Kristopher Stephen Steele. New York City Local Law 97: An Analysis of Institutional Response and Decision Making Toward Groundbreaking Carbon Emissions Legislation.

<https://dspace.mit.edu/bitstream/handle/1721.1/129002/1227048894-MIT.pdf> (last accessed 3/30/21)

³⁶ John Mandyck. \$20B Building Energy Retrofit Market. Urban Green Council. June, 2019.

<https://www.urbangreencouncil.org/content/news/20b-building-energy-retrofit-market> (last accessed 3/30/21)

³⁷ Justin Gerdes. After Pandemic, New York’s Buildings Face Daunting Decarbonization Mandate. Green Tech Media. April, 2020. <https://www.greentechmedia.com/articles/read/new-york-citys-ambitious-building-emissions-law-turns-one> (last accessed 3/30/21)

commitments, but also significantly reduce local emissions to the benefit of public health. The committees look forward to hearing testimony on progress towards these goals.

Preconsidered Int. No.

By Council Member Rosenthal

A LOCAL LAW

To amend the administrative code of the city of New York, in relation to the city's reductions in greenhouse gas emissions

Be it enacted by the Council as follows:

Section 1. Subdivision c of section 24-803 of the administrative code of the city of New York, as amended by local law number 147 for the year 2019, is amended to read as follows:

c. Carbon dioxide equivalent emission inventories. (1) No later than September 17, 2008, and no later than every September 17 thereafter, the office shall complete and post on its website an inventory and analysis of citywide emissions measured in carbon dioxide equivalent for the previous calendar year, and shall calculate the percentage change in citywide emissions measured in carbon dioxide equivalent for such calendar year, relative to such emissions for the base year for citywide emissions.

(2) No later than September 17, 2008, and no later than every September 17 thereafter, the office shall complete and post on its website an inventory and analysis of city government emissions measured in carbon dioxide equivalent for the fiscal year ending in the previous calendar year, and shall calculate the percentage change in city government emissions measured in carbon dioxide equivalent for such calendar year, relative to such emissions for the base year for city government emissions. Such inventory and analysis shall include a list of current and future capital projects intended to reduce emissions from city government operations pursuant to paragraph (1) of subdivision b of this section, and, for each project, an estimate of the associated expected emissions reductions resulting from such project, a project timeline, the total projected budget for

the project, and the schedule of planned commitments. Such inventory and analysis shall also include an estimate of the date by which the emissions reduction mandate pursuant to paragraph (1) of subdivision b shall be achieved.

(3) No later than September 17, 2021, and no later than every September 17 thereafter, the office shall complete and post on its website an inventory and analysis of greenhouse gas emissions from the portfolio of buildings owned or operated by the New York city housing authority measured in carbon dioxide equivalent for the fiscal year ending in the previous calendar year, and shall calculate the percentage change in greenhouse gas emissions from the portfolio of buildings owned or operated by the New York city housing authority measured in carbon dioxide equivalent for such calendar year, relative to such emissions for calendar year 2005. Such inventory and analysis shall include a list of current and future capital projects intended to reduce emissions from the portfolio of buildings owned or operated by the New York city housing authority pursuant to paragraph (3) of subdivision b of this section, and, for each project, an estimate of the associated expected emissions reductions resulting from such project, a project timeline, the total projected budget for the project, and the schedule of planned commitments. Such inventory and analysis shall also include an estimate of the date by which the emissions reduction goal pursuant to paragraph (3) of subdivision b shall be achieved.

§ 2. a. Definition. For purposes of this section, the term “capital commitment plan” means the capital commitment plan required to be published three times each year pursuant to paragraph 1 of subdivision d of section 219 of the New York city charter.

b. Until the emissions reductions pursuant to paragraphs (1) and (3) of subdivision b of section 24-803 of the administrative code of the city of New York are achieved, each capital project

set forth in the capital commitment plan that is intended to reduce emissions in accordance with such mandates shall be so designated in the capital commitment plan.

§ 3. This local law takes effect immediately, except that section two of this local law expires and is deemed repealed after the emissions reductions pursuant to paragraphs (1) and (3) of subdivision b of section 24-803 of the administrative code of the city of New York have been achieved.

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